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Remarks:

Reconsideration of the application, as amended herein, is respectfully requested.

Claims 1 - 8 and 10 - 21 are presently pending in the application. Claims 1, 11, 12, 16 and 20 have been amended. As it is believed that the claims were patentable over the cited art in their original form, the claims have not been amended to overcome the references.

In item 3 of the above-identified Office Action, claims 1, 2, and 10 - 21 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over U. S. Patent No. 6,384,710 to LeMense et al ("**LEMENSE**") in view of U. S. Patent No. 6,393,071 to Bourzeix ("**BOURZEIX**"). In item 4 of the above-identified Office Action, claims 3 - 8 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over **LEMENSE** in view of **BOURZEIX**, and further in view of U. S. Patent No. 6,314,125 to Shanbhag ("**SHANBHAG**").

Applicants respectfully traverse the above rejections, as applied to the amended claims.

More particularly, a transmission channel is typically defined by the receiver bandwidth and thus by the IF (Intermediate Frequency) filters. As will be discussed herebelow, in the

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low-cost system of the present invention, the receiver bandwidth is defined by the range of  $\pm 300$  ppm deviating from a nominal carrier frequency. To make this even more clear, Applicants' have amended the claims of the instant application to recite, among other limitations:

For example, Applicants' have amended independent claims 1, 11, and 20 to recite, among other limitations:

receiving and processing the data messages transmitted on the at least two different carrier frequencies within the one transmission channel defined by a receiver bandwidth **in the range of  $\pm 300$  ppm** deviating from a nominal carrier frequency. [emphasis added by Applicants]

Applicants' independent claims 12 and 16 have been amended to recite, among other limitations:

a receiver for receiving and processing the data messages transmitted **on the at least two different carrier frequencies within the one transmission channel defined by a receiver bandwidth in the range of  $\pm 300$  ppm** deviating from a nominal carrier frequency. [emphasis added by Applicants]

The amendments to Applicants' independent claims are supported by the specification of the instant application, for example, on page 7, lines 8 - 13, which states:

Due to the tolerances, low-cost systems must have a more broadband construction than is actually necessary. **As such, the receiver is able to process not only signals at the nominal carrier frequency, but also signals with slightly deviating carrier**

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**frequencies (typically +/- 300 ppm) (-> receiver bandwidth).** [emphasis added by Applicants]

See also, page 6 of the instant application, lines 8 - 18.  
One important result of Applicants' particularly claimed single transmission channel (i.e., +/- 300 ppm -> receiver bandwidth) is described in the specification of the instant application, for example, on page 7, lines 15 - 20, which states:

The purpose of the change in the carrier frequency is **to change the effect of the interference on the receiver, rather than to eliminate (narrowband) interference** as in the case of multi-channel systems. To accomplish the change, the receiver performance must show a dependency on the carrier frequency/interference frequency ratio. [emphasis added by Applicants]

As such, Applicants' presently claimed invention, importantly, **changes the effect of interference on the receiver,** rather than **eliminating interference**, as in the case of multi-channel systems. However, neither **LEMENSE**, nor **BOURZEIX**, teach or suggest Applicants' particularly claimed invention.

More particularly, as mentioned above, the bandwidth of a transmission channel is defined by the bandwidth of used IF filters. **LEMENSE** discloses the use of intermediate frequencies of 21.4 MHz and 455 kHz. See, Figs. 8 and 10 of **LEMENSE**, as well as col. 7 of **LEMENSE**, lines 59 - 63 (i.e., "Specifically in the preferred embodiment (see Fig. 8), if the

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received signal is at the first frequency (e.g., 342.4 MHz), the "difference" or intermediate frequency is 21.4 MHz and the "sum" frequency is 708.2 MHz") and col. 9 of **LEMENSE**, lines 61 - 65 (i.e., "Specifically, in the preferred embodiment, the "difference" frequency is 455 kHz and the "sum" frequency is 42.345 MHz").

The disclosure of intermediate frequencies of 21.4 MHz and 455 kHz in **LEMENSE** leads to the conclusion that **ceramic filters are used in LEMENSE**, leading typically to a bandwidth in the range of 10 kHz to 500 kHz (i.e., but not in the range of about 40 MHz). Additionally, the fact that the receiver architecture according to Fig. 9 of **LEMENSE** can receive all transmission channels with respect to **342.4 MHz and 385.2 MHz** simultaneously is based on a trick in the receiver architecture and works only with a specific choice of parameters: By using the reference oscillator frequency of 363.8 MHz both transmission channels - as usable frequency ( $385.2 \text{ MHz} = 363.8 \text{ MHz} + 21.4 \text{ MHz}$ ) and mirror frequency ( $342.4 \text{ MHz} = 363.8 \text{ MHz} - 21.4 \text{ MHz}$ ) - are mapped on to the same IF frequency (21.4 MHz). As such, Applicants' believe that the frequencies of 342.4 MHz and 385.2 MHz, disclosed in **LEMENSE**, define **two different transmission channels** (i.e., typically having a bandwidth of about 10 kHz to 500 kHz, as mentioned above).

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Consequently, contrary to Applicants' claimed invention, **LEMENSE** teaches using two different carrier frequencies in two different transmission channels, rather than using different carrier frequencies within a single transmission channel defined by the receiver bandwidth.

Applicants note that, for typical carrier frequencies in the United States of around 363 MHz - the deviation of +/- 300 ppm from nominal carrier frequency (as required by the claims of the instant application) would be about 200 kHz. Since **LEMENSE** discloses using two different carrier frequencies differing from each other by about 40 MHz, **LEMENSE** does not teach or suggest, among other limitations of Applicants' claims, transmitting data messages of two different carrier frequencies within one transmission channel having a bandwidth of 200 kHz (i.e., the deviation from +/- 300 ppm from nominal carrier frequency in 363 MHz system of **LEMENSE**).

The **BOURZEIX** reference, cited in the Office Action in combination with **LEMENSE**, fails to cure the above-discussed deficiencies of **LEMENSE**. Additionally, since **LEMENSE** discloses using two different carrier frequencies differing from each other by about 40 MHz, to modify **LEMENSE** with **BOURZEIX**, and to additionally cover Applicants' presently claimed invention, would destroy the teachings of **LEMENSE**.

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As such, Applicants' claims are believed to be patentable over **LEMENSE** and **BOURZEIX**, those references viewed alone, or in combination.

The **SHANBHAG** reference, cited in the Office Action in combination with **LEMENSE** and **BOURZEIX** against certain of Applicants' dependent claims, does not cure the above-discussed deficiencies of the **LEMENSE** and **BOURZEIX** references.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claims 1, 11, 12, 16 and 20. Claims 1, 11, 12, 16 and 20 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1, 12, 16 or 20.

In view of the foregoing, reconsideration and allowance of claims 1 - 8 and 10 - 21 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

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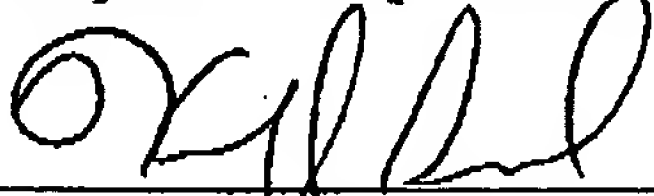
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Additionally, please consider the present as a petition for a one (1) month extension of time, and please provide a one (1) month extension of time, to and including, September 25, 2006, to respond to the present Office Action.

The extension fee for response within a period of one (1) month pursuant to Section 1.136(a) in the amount of \$120.00 in accordance with Section 1.17 is enclosed herewith.

Please provide any additional extensions of time that may be necessary and charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,



For Applicants

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September 22, 2006

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